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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,620	09/29/2003	Christopher Anthony Brand	SPEC05	6261

7590 10/20/2005

Peter van Baarsen  
c/o Spectrum Signal Processing Inc.  
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Burnaby, BC V5A 4X1  
CANADA

EXAMINER

RAY, GOPAL C

ART UNIT PAPER NUMBER

2111

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

10/671,620

Applicant(s)

BRAND, CHRISTOPHER  
ANTHONY

Examiner

Gopal C. Ray

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

1. Claims 1- 19 are presented for examination.
2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The examiner believes that the title of the invention is broad. A descriptive title indicative of the invention will help in proper indexing, classifying, searching, etc. See MPEP 606.01. However, the title of the invention should be limited to 500 characters.
3. The drawings filed on 9/29/03 are acceptable by the examiner. However, direct any inquiries concerning drawing review by the USPTO draftsman to the Drawing Review Branch at (703) 305-8404.
4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
5. Claims 7, 14-16 and 19 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form.

As per claims 7 and 14, the claims do not further limit, i.e., narrow the controller functionality of claims 6 and 13 respectively.

As per claims 15 and 16, the claims incorporate the deficiencies of claim 14.

As per claim 19, the claim depends from claim 20 which is non-existent.

6. Claims 1-6, 8-13 and 15-18 are objected to because of the following informalities:  
Claim 1, line 26, the word –and– should be inserted after “;”; claim 3, lines 1-2;  
claim 5, line 1; claim 11, line 2; claim 12, line 1; claim 15, lines 2-3 and claim 17,  
line 22, the phrase “said additional communications channel” lacks proper  
antecedent basis because “an additional communications channel” has not been

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claimed earlier; claim 6, line 2 and claim 13, line 2, "a hotswap" should be changed to –the hotswap–; claim 9, line 2 and claim 16, line 2, "a standard" should be changed to –the standard–; claim 10, line 17, the word –and– should be inserted after “;”.

As per claims 2, 4, 8, 10, 13, and 18, the claims incorporate the deficiencies of the respective parent claims. Furthermore, all claims should be revised carefully to eliminate all grammatical errors and antecedent basis problems.

7. Claims 1-6, 8-13, 17 and 18 would be allowable over the prior art of record if rewritten or amended to overcome the objection set forth in paragraph 6 of this office action.

The following is an Examiner's Statement of Reasons for Allowance:

The claimed invention is directed to “a method of live extraction of a board without using a centralized controller”. The examiner has done complete search and found no prior art of record, alone or in combination, teaches or fairly suggests the limitation such as "alerting subject board of the intention to remove it; subject board reporting its alerted state to middleware and preventing new transactions on all appropriate boards in accordance with the application” in combination with other claimed elements as claimed in independent method claim 1; similar limitations in independent method claims 10 and 17. Dependent claims 2-6, 8, 9, 11-13 and 18 further limit the subject matter of the respective parent claims.

Any comments considered necessary by applicant must be submitted in response to this office action to avoid processing delays. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is urged to consider the references. However, the

references should be evaluated by what they suggest to one versed in the art, rather than by their specific disclosure.

If applicants are aware of any prior art better than those of record, they are required to bring the prior art to the attention of the examiner. Applicants are also reminded that each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in 37 CFR 1.56. Applicants are advised to submit any information material to patentability in accordance with 37 CFR 1.97 and 1.98.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gopal C. Ray whose telephone number is (571) 272-3631. The examiner can normally be reached on Monday - Friday from 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart, can be reached on (571) 272-3632. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [[mark.rinehart@uspto.gov](mailto:mark.rinehart@uspto.gov)].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published

in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC central telephone number is (571) 272-2100. Moreover, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lastly, paper copies of cited U.S. Patents and Patent Application Publications ceased to be mailed to applicants with office actions as of June 2004. Paper copies of Foreign Patents and Non-Patent Literature will continue to be included with office actions. These cited U.S. Patents and Patent Application Publications are available for download via Office's PAIR. As an alternate source, all U.S. Patents and Patent Application Publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. Patent or Patent Application Publications will not be granted.

  
GOPAL C. RAY  
PRIMARY EXAMINER  
GROUP 2300

<b>Notice of References Cited</b>	Application/Control No. 10/671,620	Applicant(s)/Patent Under Reexamination BRAND, CHRISTOPHER ANTHO	
	Examiner Gopal C. Ray	Art Unit 2111	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,452,789	09-2002	Pallotti et al.	361/683
*	B	US-6,487,624	11-2002	Erickson et al.	710/302
*	C	US-6,658,507	12-2003	Chan, Wan-Kan	710/100
*	D	US-6,708,283	03-2004	Nelvin et al.	714/5
*	E	US-2002/0154646	10-2002	Dubois et al.	370/406
*	F	US-2003/0033546	02-2003	Bresniker et al.	713/300
*	G	US-2004/0225802	11-2004	Krishnamurthy et al.	710/302
*	H	US-6,950,896	09-2005	Scordalakes et al.	710/301
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	"Hot swap controller and its control strategy design" by Zhang et al. (abstract only) Publication Date: 18-21 Oct. 2004
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.





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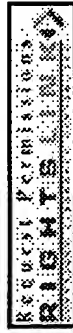
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## Hot swap controller and its control strategy design

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### Abstract

A hot swap controller was developed to ensure the safe insertion and removal of a circuit board from a live backplane. Multi protections of both board and backplane were proposed and realized in this design, which includes automatically starting current limiting or circuit breaking in the event of over current faults and driving an SCR crowbar to protect the loads in the event of over input voltage faults. In addition, the under-voltage detecting and output voltage monitoring is also available for its use. A lot of efforts were put into the design and optimization of its control strategy since the performance of the circuit depends it strongly. The simulation results are well consistent with the expectations. This IC could be realized in BCD technology (Bipolar-CMOS-DMOS technology).

Index Terms

Inspe

### Controlled Indexing

CMOS integrated circuits overcurrent protection overvoltage protection power supply circuits printed circuit accessories divisions

### Non-controlled Indexing

bipolar-CMOS-DMOS technology circuit board insertion circuit board removal circuit limiting control strategy design hot swap controller live backplane over-current protection over-voltage protection silicon controlled rectifier

### Author Keywords

Not Available

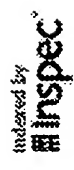
### References

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Citing Documents

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